



Mechanical Data Sheet: Vessel

Plant Item No.
24590-PTF-MV-FEP-VSL-00005Data Sheet No. *Rev 1*
24590-PTF-MVD-FEP-P0003

Project	RPP-WTP	P&IDs	24590-PTF-M6-FEP-P0003
Project No	24590		
Project Site	DOE Hanford	Process Data Sheets	24590-PTF-MEC-FEP-00001
System No	FEP		
Building	PTF	Vessel Drawings	N/A
Description	Waste Feed Evaporator Condensate Vessel FEP-VSL-00005		

ISSUED BY
RPP-WTP PDC
10/19/03
DATE

Reference Data

Charge Vessels (Tag Numbers)	N/A
Pulse Jet Mixers / Agitators (Tag Numbers)	N/A
RFDs/Pumps (Tag Numbers)	N/A

Service Data

Quality Level	CM	Fabrication Specification	24590-WTP-3PS-MV00-TP001
Seismic Category	SC-III	Design Code	ASME Section VIII Division 1
Service/Contents	Process Condensate	Code Stamp	Yes
Design Specific Gravity	1.0	NB Registration	Yes
Max Operating Volume	gal 4144**	Wind Design	None
Total Volume	gal 5022**	Snow/Ash Design	None
Postweld Heat Treat	Not Required		
Seismic Base Moment*	ft*lb	Seismic Design	24590-WTP-3PS-MV00-TP002 24590-WTP-3PS-SS90-T0001

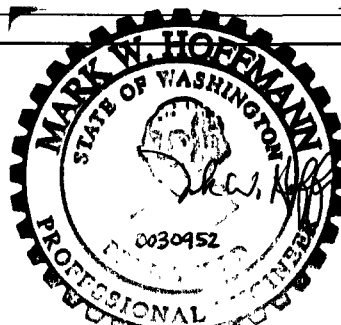
Design Data

Inside Diameter	inch 96**	Corrosion Allowance	inch 0.04
Length/Height (TL-TL)	inch 128**		
	Vessel Operating	Vessel Design	Coil/Jacket Design
Internal Pressure	PSIG -0.07	15	N/A
External Pressure	PSIG 0	14.7	N/A
Temperature	*F 110	150	N/A
Min Design Metal Temp	*F 49	Hydrostatic Test Pressure	PSIG 22

Material of Construction

Component	Material	Containment	Notes
Top Head	SA-240 T316L	Auxiliary	1/4" thickness; maximum carbon content of 0.030% for welded components
Shell	SA-240 T316L	Primary	1/4" thickness; maximum carbon content of 0.030% for welded components
Bottom Head	SA-240 T316L	Primary	1/4" thickness; maximum carbon content of 0.030% for welded components
Vessel Support	Stainless Steel	N/A	Maximum carbon content of 0.030% for welded components
Jacket/Coils/Half-Pipe Jacket	N/A	N/A	
Internals	N/A	N/A	
Pipe	SA-312 TP316	Note 1	Maximum carbon content of 0.030% for welded components
Forgings/ Bar stock	SA-182 F316	Note 1	Maximum carbon content of 0.030% for welded components
Gaskets	Flex Spiral Wound		Flexitallc spiral wound
Bolting	A193 GR B7		With 2 hex. Nuts
Other			

Note Please note that source, special nuclear and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA), are regulated at the U S Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority DOE asserts, that pursuant to the AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities Information contained herein on radionuclides is provided for process description purposes only



EXPIRES 12/10/04

This Bound Document Contains a total of 2 pages

1	Issued for Permitting Use	E. Le <i>alt</i>	G. Butt <i>GEB</i>	M. Hoffmann <i>MH</i>	10/19/03
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REV	REASON FOR REVISION	PREPARER	REVIEWER	APPROVER	Date





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Miscellaneous Data

Orientation	<i>Vertical</i>
Support Type	<i>Skirt</i>
Insulation Function	<i>None</i>
Insulation Thickness	inch <i>None</i>
Insulation Material	<i>None</i>
External Finish	<i>Welds descaled as laid</i>
Internal Finish	<i>Welds ground smooth</i>

Notes

* To be determined by Seller.

** To be verified by Seller.

Notes: (1) Nozzles located below the top of the overflow nozzle are primary containment. See 24590-WTP-3PS-MV00-TP001 for NDE requirements.

(2) Nozzle tolerance +/- 1/4"

(3) Support pads shall be high to align vessel overflow nozzle centerline at 15'-5 3/8"

(4) 40 years design life

(5) NDE for this vessel must meet requirements per para. 6.4.2 of specification 24590-WTP-3PS-MV00-TP001